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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,894	10/17/2005	Robert L. Long	2001B101B	6402

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EXAMINER	
NEGIN, RUSSELL SCOTT	
ART UNIT	PAPER NUMBER
1631	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/528,894	LONG ET AL.	
	Examiner	Art Unit	
	Russell S. Negin	1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 August 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3,5,6,13-20,23-26 and 30-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3,5,6,13-20,23-26 and 30-34* is/are rejected.

7)☒ Claim(s) *24* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 August 2010* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Comments

Applicant's amendments and request for reconsideration in the communication filed on 31 August 2010 are acknowledged and the amendments are entered.

Claims 3, 5-6, 13-20, 23-26, and 30-34 are pending in the instant application.

Claims 3, 5-6, 13-20, 23-26, and 30-34 are examined in this Office action.

Withdrawn Objections/Rejections

The objection to the disclosure for missing drawings is withdrawn in view of the set of drawings filed on 31 August 2010.

The objection to claim 4 under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim is withdrawn in view of cancellation of claim 4.

The rejections of claims 3-6, 13-20, 23-26, and 30-34 under 35 U.S.C. 103(a) as being unpatentable over Long et al. [WO 01/09203 A1; published 8 February 2001; on IDS] as evidenced by Geosoft [Geosoft Technical Note, downloaded online from geosoft.com in February 2009; twelve pages unnumbered] in view of Boyer et al. [Chemical Engineering Science, volume 57, August 2002, pages 3185-3215] are withdrawn in view of amendments filed to the instant set of claims on 31 August 2010.

The rejections of claims 3-6, 13-16, 23-25, and 30-34 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 3-8,

10-12, and 15-21 of U.S. Patent No. 7,116,414 in view of Long et al. [WO 01/09203 A1; published 8 February 2001; on IDS] are withdrawn in view of amendments filed to the instant set of claims on 31 August 2010.

The rejections of claims 3-6, 13-16, 23-26, and 30-34 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3-6, 9, 13-16, 22-25, and 34-36 of U.S. Patent No. 7,106,437 in view of Long et al. [WO 01/09203 A1; published 8 February 2001; on IDS] in view of Boyer et al. are withdrawn in view of amendments filed to the instant set of claims on 31 August 2010.

Claim Objection

The following objection is newly applied:

Claim 24 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Specifically, dependent claim 24 recites the same list of the polymer properties already recited in the claim from which it depends [step a of independent claim 30].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

> invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following rejections are necessitated by amendment:

Claims 3-6, 13-20, 23-26, and 30-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Long et al. [WO 01/09203 A1; published 8 February 2001; on IDS] as evidenced by Geosoft [Geosoft Technical Note, downloaded online from geosoft.com in February 2009; twelve pages unnumbered] in view of Chua et al. [Journal of Catalysis, 2000, volume 196, pages 66-72] in view of Boyer et al. [Chemical Engineering Science, volume 57, August 2002, pages 3185-3215].

Claim 13 is drawn to a process for determining polymer properties (comprising melt flow rate) in a polymerization reactor system. This process comprises obtaining a regression model for determining a polymer property that determines principal component loadings and principal component scores. The process uses a Raman probe that is inserted into a gas-solid reactor system to acquire a Raman spectrum of

an *in situ* olefin sample. Next, a new principal component score from at least a portion of the Raman spectrum and the principal component loadings are calculated. Finally, the polymer property is calculated by applying the new principal component score to the regression model.

The document of Long et al. is a Raman analysis system for olefin polymerization control. Specifically, page 3, lines 10-20 of Long et al. state the following:

> Without limiting the present invention to any particular spectroscopic analysis technique, the inventors have observed in a slurry reaction environment a correlation between in-situ collected Raman spectra (a product of Raman spectroscopy) from the liquid phase of the reaction environment and the concentration of at least one reactor constituent. Furthermore, the inventors have discovered that this correlation, in combination with in-situ, real time analysis of at least one reactor constituent in such a reactor will allow for improved control of the final product properties, such as melt flow rate. Improved control of the final product properties is achieved by metering the flow of at least one reactor constituent into the slurry reactor in response to the in-situ measured concentration of at least one reactor constituent.

Consequently, Long et al. is determining polymer properties (such as melt flow rate) in a reactor system wherein the Raman spectra are acquired from an *in situ* sample using a Raman probe in a the slurry reactor system. [preamble and final “wherein" clause]

Additionally, page 4, lines 11-23 of Long et al. describes a correlation step that correlates olefin polymerization to physical properties to melt flow rate. More specifically, page 19, lines 1-12 of Long et al. teach use of principal component analysis and scores to correlate spectral data to specific polymer properties. [steps a and b]

Additionally, page 19, lines 8-17 of Long et al. teach a specific regression analysis between spectral data and scores that is optimized to produce a predicted value of a property. This model is applied to a portion of the Raman spectrum

illustrated in Figure 8 of Long et al. to result in new principal component scores [see for example, page 19, lines 19-30 of Long et al.] [step c]

Additionally, this principal component analysis, when applied to the portion of the Raman spectrum in Figure 8, results in a calculation of a new polymer property as listed in line 30, page 19 to line 4 on page 20 [i.e. the prediction of MFR (melt flow rate) of polypropylene granules] (step d of claim 1).

While Long et al. describes PCA in detail, Long et al. does not mention the term principal component loadings in the document. Consequently, the Geosoft Technical Note shows that it is inherent to use principal component loadings in PCA analysis (see for example, second page of Geosoft).

Additionally, Long et al. does not specifically apply the *in situ* analysis of a Raman probe inserted into gas-solid fluidized bed reactors.

The article of Chua et al. studies fluidized bed techniques for measuring UV Raman spectra of catalysts and adsorbates [title]. Specifically, Figures 1-3 on page 67 of Chua et al. in addition to the sections entitled "Methods of Recording UV Raman Spectra: Fluidized Bed Technique" and "In situ fluidized bed reactor" on pages 67 and 68 of Chua et al. elaborate on the process of using in situ Raman spectroscopy to measure the properties of solid zeolites as they are spinning under the flow of gases in the fluidized bed.

However, Chua et al. do not show polymerization reactions occurring in these gas-solid fluidized beds.

The review of Boyer et al. studies measuring techniques in gas-liquid and gas-liquid-solid reactors for use in oil refineries or petrochemical studies [title and abstract]. Inserting a Raman probe into a reactor is an invasive technique that is analogous to the invasive techniques listed in Table 2 on page 3196 of Boyer et al. Specifically, Table 2 of Boyer et al. comprises successfully inserting various types of probes analogous to Raman probes into both gas-liquid and gas-liquid-solid reactor systems and measuring properties of each distinct reactor system.

With regard to claim 3, the equation on page 19 of Long et al. lists a locally weighted regression model.

With regard to claim 5, line 3 of page 20 of Long et al. teaches polypropylene granules.

With regard to claims 6 and 15, page 4, lines 11-23 of Long et al. teaches acquiring a Raman spectrum irradiating the sample of polyolefin and collecting the scattered radiation during sampling interval. Purging and purging fluids are described on page 13, lines 1-10 of Long et al.

With regard to claim 14, Example 3 and Figures 7-8 of Long et al. illustrate a plurality of Raman spectra of sample comprising polyolefins.

With regard to claim 17, page 3, lines 20-25 of Long et al. described the Raman probe being IN SITU with the moving slurry polymer bed.

With regard to claim 19, Figure 1 of Long et al. illustrates a Raman probe IN SITU in the reactor body.

With regard to claim 20, purging the polymer is described in page 13, lines 1-10 of Long et al.

Independent claim 30 is drawn to similar subject matter as independent claim 13 with the additional limitations of adjusting at least one polymerization parameter based on the calculated polymer property wherein this property comprises melt flow rate. Page 8, lines 5-12 of Long et al. teach that the polymerization reaction control is achieved by metering the flow of reactants into the reactor in response to Raman sampling data. Page 8, lines 21-30 of Long et al. explains in further detail what the control variable and manipulated variables are. For example, melt flow rate is a control variable, and hydrogen flow rate is a manipulated variable.

Claim 23 is drawn to the same subject matter as claim 3, but is dependent from claim 30. Consequently, since claim 3 is taught in the prior art, claim 23, is taught in the prior art as well.

With regard to claim 24, the property analyzed is melt flow rate (MFR) [see pages 19-20 of Long et al.].

Claim 25 is drawn to the same subject matter as claim 5, but is dependent from claim 30. Consequently, since claim 5 is taught in the prior art, claim 25, is taught in the prior art as well.

Claim 26 is drawn to the same subject matter as claim 6, but is dependent from claim 30. Consequently, since claim 6 is taught in the prior art, claim 26, is taught in the prior art as well.

With regard to claim 31, Example 3 and Figures 7-8 illustrate a plurality of Raman spectra of sample comprising polyolefins. As discussed above, regression and principal component analyses are taught on page 19 of Long et al.

Claim 32 is drawn to the same subject matter as claim 6, but is dependent from claim 30. Consequently, since claim 6 is taught in the prior art, claim 32, is taught in the prior art as well.

With regard to claim 33, hydrogen flow rate, total feed rate, and catalyst flow rate are described in page 8 lines 20-25 of Long et al. as being parameters that are manipulated.

Claims 16 and 34 are dependent from claims 13 and 30, respectively, and comprise:

(i) obtaining a second regression model for determining a second polymer property, the second regression model including second principal component loadings and second principal component scores;

(ii) calculating a new second principal component score from at least a portion of the Raman spectrum and the second principal component loadings; and

(iii) calculating the second polymer property by applying the new second principal component score to the second regression model.

Claim 18 is further limiting wherein the Raman probe is inserted *in situ* into the reactor comprising the location of the product discharge.

Long et al. teaches a process for determining polymer properties in a polymerization reaction, as described above. Long et al. also teach in the abstract that the in situ location of the Raman probe allows reactor conditions to be metered.

While Long et al. teaches regression to identify predicted properties of a first polymer property, and Long et al. identifies second polymer properties such as ethylene concentration (page 22 of Long et al.) or polyethylene copolymer measurements (page 23 of Long et al.), Long et al. does not explicitly state that the regression and PCA analysis for melt flow rate (as described above) are applied to these other properties. Additionally, Long et al. does not give an explicit location of the in situ probe within the reactor.

It would have been obvious to someone of ordinary skill in the art at the time of the instant invention to apply the regression analysis with regard to melt flow rate as described in Example 3 of Long et al. to the other properties listed above, wherein the motivation would have been that regression/PCA analysis has the advantage of providing clear and optimal parameters to fit the equations describing the parameters of interest (see for example, the equation on page 23 of Long et al.). It would have been further obvious to someone or ordinary skill in the art at the time of the instant invention to place the *in situ* probe near the discharging of the product stream wherein the motivation would have been that constituents (i.e. the product output and reaction efficacy) are more easily measured (i.e. "metered") near the location of the probe [see abstract of Long et al., page 3 lines 10-20 of Long et al. and page 8, lines 10-12 of Long et al.]

It would have been further obvious to someone of ordinary skill in the art at the time of the instant invention to modify the analysis of polymerization in a reactor using an *in situ* Raman probe as in Long et al. by using an in situ Raman probe in a gas-solid fluidized bed as in Chua et al. and the multiphase polymerization reactors of Boyer et al. because it is obvious to combine known elements in the prior art to yield a predictable result. In this instance, the gas-solid fluidized bed of Chua et al. and the invasive monitoring of petrochemical reactions of Boyer et al. are alternatives to the general polymerization reactor of Long et al. There would have been a reasonable expectation of success in combining Long et al., Chua et al., and Boyer et al, because three studies

pertain to using "invasive" probes to monitor reactions in chemical systems as the reactions occur.

Response to Arguments:

Applicant's arguments filed 31 August 2010 have been fully considered but they are not persuasive.

Applicant argues that fluidized beds (as recited in the amended claims) are meant to only encompass gas-solid reactors and not a gas-liquid multiphase reactor. In view of the amendments limiting a fluidized bed to only encompass "gas-solid" reactors, the combination of Long et al., Chua et al., and Boyer et al. teach or suggest all of the limitations of the instantly rejected claims.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29

USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

The following rejection is necessitated by amendment:

Double Patenting Rejection #1:

Claims 3, 5-6, 13-16, 23-25, and 30-34 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 3-8, 10-12, and 15-21 of U.S. Patent No. 7,116,414 in view of Long et al. in view of Chua et al. in view of Boyer et al.

Instant claims 3, 5-6, 13-16, 23-25, and 30-34 are similar to claims 3, 5-8, 10-12, and 15-21 of '414 with the exception that the claims of '414 lack the final "wherein" clause that requires the Raman probe to be located in situ in a gas-solid fluidized bed

reactor. Long et al. describes in the abstract the use of in situ Raman probes for assessing polymerization [see abstract]. Long et al. describes that it would be obvious to put the probe in the reactor for closer metering of reactor constituents. Chua et al. uses in situ Raman probes to monitor gas-solid fluidized beds [abstract, pages 66-67 of Chua et al.]. Boyer et al. demonstrates success in using invasive probes to monitor multiphase petrochemical reactions [abstract, pages 66-67].

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to modify the process for determining polymer properties in a polymerization reactor system of '414 by use of the in situ probe of Long et al. wherein the motivation would have been that the location of the probe in the reactor allows for closer metering of reactor constituents [see abstract of Long et al.] It would have been further obvious to one of ordinary skill in the art at the time of the instant invention to modify the polymerization reactor system of '414 and the in situ probes of Long et al. by use of the gas-solid fluidized beds and multiphase petrochemical reactors of Chua et al. and Boyer et al. because it is obvious to combine known elements in the prior art to yield a predictable result. In this instance, the gas-solid fluidized bed of Chua et al. and the invasive monitoring of petrochemical reactions of Boyer et al. are alternatives to the general polymerization reactor of Long et al. There would have been a reasonable expectation of success in combining the claims of '414, Long et al., Chua et al., and Boyer et al, because three studies pertain to using "invasive" probes to monitor reactions in chemical systems as the reactions occur.

Response to Arguments:

Applicant's arguments filed 31 August 2010 have been fully considered but they are not persuasive.

First, applicant argues that there is no motivation to combine the claims of '414 with the in situ analysis of Long et al. This argument is not persuasive because, as stated above, using an in situ probe (as in Long et al.). provides a real-time, on-line monitoring of the chemicals in the system of interest.

Second, applicant argues that there is no reasonable expectation of success in combining the claims of '414 with Long et al. In making this argument, applicant argues limitations in the specification of '414 and not in the claims under which the double patenting rejection has been applied. As stated above, there would have been a reasonable expectation of success in combining the CLAIMS of '414 with Long et al. because both studies pertain to using "invasive" probes to monitor reactions in chemical systems as the reactions occur.

The following rejection is necessitated by amendment:

Double Patenting Rejection #2:

Claims 3-6, 13-16, 23-26, and 30-34 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3-6, 9, 13-16, 22-25, and 34-36 of U.S. Patent No. 7,106,437 in view of Long et al. [WO 01/09203 A1; published 8 February 2001; on IDS] in view of Chua et al. in view of Boyer et al.

Instant claims 3-6, 13-16, 23-26, and 30-34 are similar to claims 1, 3-6, 9, 13-16, 22-25, and 34-36 of '437 with the exception that the claims of '437 lack the final "wherein" clause that requires the Raman probe to be located *in situ*. Long et al. describes in the abstract the use of in situ Raman probes for assessing polymerization [see abstract]. Long et al. describes that it would be obvious to put he probe in the reactor for closer metering of reactor constituents. Additionally, the claims of '437 are drawn to using a slurry bed rather than a fluidized bed.

Chua et al. uses in situ Raman probes to monitor gas-solid fluidized beds [abstract, pages 66-67 of Chua et al.]. Boyer et al. demonstrates success in using invasive probes to monitor multiphase petrochemical reactions [abstract, pages 66-67]. The reactors in Boyer et al. encompass slurry reactors [abstract].

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to modify the process for determining polymer properties in a polymerization reactor system of '437 by use of the in situ probe of Long et al. wherein the motivation would have been that the location of the probe in the reactor allows for closer metering of reactor constituents [see abstract of Long et al.] It would have been further obvious to one of ordinary skill in the art at the time of the instant invention to modify the polymerization reactor system of '437 and the in situ probes of Long et al. by use of the gas-solid fluidized beds and multiphase petrochemical reactors of Chua et al. and Boyer et al. because it is obvious to combine known elements in the prior art to yield a predictable result. In this instance, the gas-solid fluidized bed of Chua et al. and the invasive monitoring of petrochemical reactions of Boyer et al. are alternatives to the

general polymerization reactor of Long et al. There would have been a reasonable expectation of success in combining the claims of '414, Long et al., Chua et al., and Boyer et al, because three studies pertain to using "invasive" probes to monitor reactions in chemical systems as the reactions occur.

It would have been further obvious to one of ordinary skill in the art at the time of the instant invention to modify the process for determining polymer properties in a slurry polymerization reactor system of '437 by use of the in situ probe of Long et al. wherein the motivation would have been that the location of the probe in the reactor allows for closer metering of reactor constituents [see abstract of Long et al.]

It would have been further obvious to one of ordinary skill in the art at the time of the instant invention to modify the process for determining polymer properties in a slurry polymerization reactor system of '437 and the *in situ* probe of Long et al. by applying the study to a fluidized bed reactor (as in Long et al. and Chua et al.) rather than a slurry bed (as in the abstract of Boyer et al.) because a fluidized bed is an alternative type of reactor to which to apply the spectral measurements. For the reasons discussed above, there is a reasonable expectation of success in applying invasive techniques (such as in situ Raman spectral analysis to either fluidized or slurry beds).

Response to Arguments:

Applicant's arguments filed 31 August 2010 have been fully considered but they are not persuasive.

It is assumed that the arguments on page 12 of the Remarks pertain to this second double patenting rejection (although the '414 rather than the '437 patent is cited).

Applicant argues that the amended set of claims requiring a "gas-solid" fluidized bed is not taught in the combination of the claims of '437 and Long et al. This argument is not persuasive because the combination of the claims of '437, Long et al., Chua et al., and Boyer et al. make obvious all of the limitations of the rejected claims in '437.

Declaration

The declaration under 37 CFR 1.132 filed 31 August 2010 is insufficient to overcome the rejection of claims 3-6, 13-20, 23-26, and 30-34 based upon the obviousness prior art and/or the obviousness double patenting rejections as set forth in the last Office action.

The declaration asserts that the date of publication of Long et al. [WO 01/09203 A1; published 8 February 2001; on IDS] is not effective because its publication date is less than one year before the benefit date of the instant application. In response, applicant is reminded of the section entitled "Priority" on pages 2-3 of the Office action mailed on 6 March 2009 wherein it is stated that the benefit date of the instantly rejected claims is 8 May 2003 rather than 9 November 2001. Consequently, since the publication date of the prior art document WO 01/09203 of 8 February 2001 is more than one year prior to the benefit date of the instant set of claims of 8 May 2003, the prior art document WO 01/09203 is an effective reference in terms of its date.

Conclusion

No claim is allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the central PTO Fax Center. The faxing of such pages must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993)(See 37 CFR § 1.6(d)). The Central PTO Fax Center Number is (571) 273-8300.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell Negin, whose telephone number is (571) 272-1083. The examiner can normally be reached on Monday-Friday from 8:30 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Marjorie Moran, Supervisory Patent Examiner, can be reached at (571) 272-0720.

Information regarding the status of the application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information on the PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Russell S. Negin/
Examiner, Art Unit 1631
29 October 2010